DOCUMENT RESUME

ED 078 103 UD 013 592

AUTHOR Francies, Hallie; Fleming, Margaret
TITLE Nutritional Improvement Project, DPPF, Fund 97 Component 4: 1971-72 Evaluation.
INSTITUTION Cleveland Public Schools, Ohio. Div. of Research and Development.
PUB DATE Mar 73
NOTE 14p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Academic Achievement; Attendance; *Breakfast Programs; Compensatory Education Programs; Disadvantaged Youth; Economically Disadvantaged; *Elementary School Students; Food Service; *Nutrition; *Paraprofessional School Personnel; Program Evaluation; School Attitudes; Student Attitudes; Urban Schools
IDENTIFIERS *Ohio

ABSTRACT

The objectives of the Nutritional Improvement Project were as follows: children will attend school regularly; children will develop a receptive attitude toward school; children will increase in level of achievement. Cleveland Public Schools for the past four and one-half years have provided breakfast for all elementary pupils attending Title I, 1965 Elementary Secondary Education Act, schools. In 1971-72 school year, approximately 37,000 students in 58 schools were served breakfast every day. All pupils in grades from kindergarten through six in the 58 Title I schools were offered breakfast at the beginning of each school day between 8:40 and 9:00 a.m. Pupils ate breakfast in their classroom with Breakfast Aides servicing four rooms by distributing the food, supervising the collection of all disposables and clearing the classrooms prior to the start of the school day. The Breakfast Aides who were hired from among applicants residing in the school neighborhood, worked an average of three hours per day. For the past five years there has been a continuing trend of lower attendance in Title I and non-Title I schools. However the Title I schools receiving breakfast did not experience as great a decline in attendance between 1967-68 and 1970-71, and in 1971-72 showed a slightly greater gain in attendance than recorded in the near-poverty area elementary schools. (Author/JM)

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NUTRITIONAL IMPROVEMENT PROJECT

DPPF

FUND 97 COMPONENT b

1971 - 72 EVALUATION

Prepared
by

Hallie Francies
Research Associate

Margaret Fleming
Directing Supervisor

UD 013592

Cleveland Public Schools

DIVISION OF RESEARCH AND DEVELOPMENT

March, 1973

NUTRITIONAL IMPROVEMENT PROJECT

I. INTRODUCTION

Frequently children from impoverished families do not eat any breakfast and the resulting hunger causes the child to function less efficiently and less effectively within the classroom. Cleveland classroom teachers in daily contact with impoverished children have estimated that over 75 per cent of their pupils come to school with inadequate breakfasts. An adequate breakfast, according to the Iowa Breakfast Studies, results in significant improvement in pupil attitudes, achievement, health and attendance. The underlying rationale of this Nutritional Improvement Project is based on these facts and focuses on improved pupil attendance at school which can be related in some degree to both pupil health and pupil attitudes.

Cleveland Public Schools for the past four and one-half years have provided breakfast for all elementary pupils attending Title I schools. In 1971-72 school year, approximately 37,000 students in 58 schools were served breakfast every day. Objectives of this project centered on the following points:

- Children will attend school regularily;
- Children will develop a receptive attitude toward school;
- Children will increase in level of achievement.

COST ANALYSIS

The project expenditure for breakfast for the 1971-72 school year was $997,840 or 15 cents per pupil per school day,

II. HIGHLIGHTS OF FINDINGS

The objectives of this project which related to pupil attendance and the development of receptive attitudes toward school appeared to be met. The objective which related to increased pupil achievement was not met to any measurable degree and could not be related to services provided through the Nutritional Improvement Project. Specifically the following results were noted:

Objective 1: Children will attend school regularily.

For the past five years there has been a continuing trend of lower attendance in Title I and non-Title I schools. However the Title I schools receiving breakfast, did not experience as great a decline in attendance between 1967-68 and 1970-71, and in 1971-72 showed a slightly greater gain in attendance than recorded in the near-poverty area elementary schools. These differences in school attendance data were statistically significant.

Objective 2: Children will develop a receptive attitude toward school.

Eighty-seven per cent of the adult school personnel interviewed by a private firm stated that they noted improved attendance, alertness, energy attitudes, manners and motivation.

Objective 3: Children will increase in level of achievement.

This objective could not be evaluated in relation to this project specifically since these schools were involved in a number of other projects more directly related to pupil achievement such as Reading Improvement, Math Skills Improvement, Resident Tutor, etc.

IMPLICATIONS AND RECOMMENDATIONS

Data indicated that breakfast in school did attract children and improve pupil attendance. It appeared that the pupils were in need of the food and it was of benefit to them. Teacher opinions verified this with the observations that pupils were now

alert and motivated to participate in school work. This would imply the importance of continuing to supply breakfast to children in the poverty-areas.

The major criticism of the project offered by school personnel concerned the lack of variety in the menu which was offered. The experimental variations in menu which were tried were well received with the comments that they should be continued.

III. DESCRIPTION OF PROJECT

All pupils in grades from kindergarten through six in the 58 Title I schools were offered breakfast at the beginning of each school day between 8:40 and 9:00 a.m. Pupils ate breakfast in their classroom with Breakfast Aides servicing four rooms by distributing the food, supervising the collection of all disposables and clearing the classrooms prior to the start of the school day. The Breakfast Aides who were hired from among applicants residing in the school neighborhood, worked an average of three hours per day.

Breakfast consisted of orange juice, cold, sugared cereal and milk. During the year several different foods were tried to encourage the children to eat a more healthful breakfast. These innovations included the following:

- A bologna sandwich on a bun;
- Strawberry-topped oatmeal cereal;
- Rice Krispies with peanut butter and honey topping.

These new foods were well received by the children, with the bologna sandwich being received with overwhelmingly the best response.

IV. EVALUATION

The first objective of the project related to the effect of breakfast on pupil attendance. During the four years, 1967-68 to 1970-71, attendance in all Title I schools declined. Therefore it was necessary to compare the rate of decline in attendance between schools which have been supplying breakfast and those which were not yet feeding their pupils. Prior to the institution of the breakfast project in 1967-68 there was a significant difference in pupil attendance between these two groups of schools with the schools designated for first inclusion in this project having significantly lower rates of attendance. The attendance in both classifications of schools (breakfast and Title I non-breakfast) decreased for the next three years until 1970-71. At this time, however, the percent attendance was not significantly different between the two groups of schools since the attendance in schools serving breakfast had decreased less than that of Title schools not serving breadfast. In 1971-72 although both groups increased in attendance, the breakfast schools' attendance increase was greater. These data are presented in TABLE 1 and CHART 1.

TABLE 1

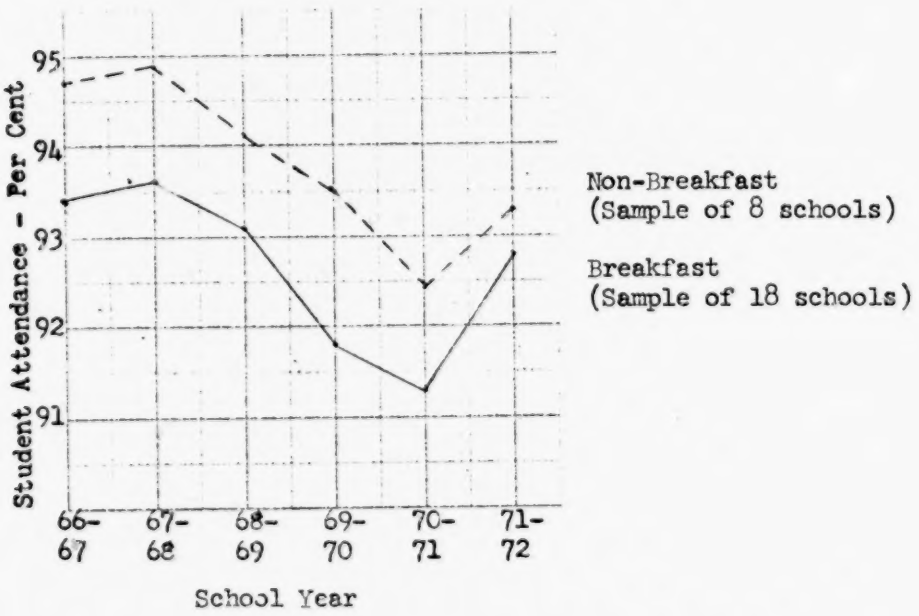
PUPIL ATTENDANCE - TITLE I SCHOOLS
Sample of Breakfast and Non-Breakfast Schools

	Per Cent Pupils in Attendance					
	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Breakfast (18 schools *)	93.4	93.6	93.1	91.8	91.3	92.8
Non-Breakfast (8 schools *)	94.7	94.9	94.1	93.5	92.4	93.3
t-test	2.25 p<.05	2.73 p<.05	2.35 p<.05	2.87 p<.01	1.44 n.s.	1.83 n.s.

*List of Selected Schools in Appendix B.

CHART 1

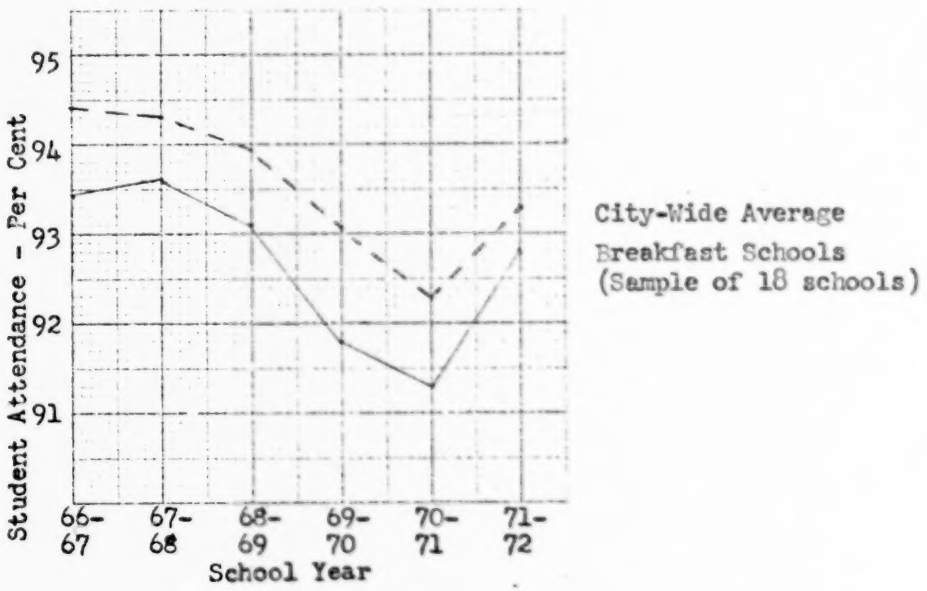
PUPIL ATTENDANCE - TITLE I SCHOOLS
Sample of Breakfast and Non-Breakfast Schools



Comparing attendance of the 18 schools which have served breakfast for five years with average attendance of all elementary schools demonstrates the improvement evidenced in these target area schools. In 1966-67, prior to the initiation of the Nutritional Improvement project, the 18 schools' average attendance was 1.3 per cent below the city-wide average. In 1971-72 these same 18 schools recorded attendance which was only 0.5 per cent below the city-wide average. Chart 2 illustrates these trends.

CHART 2

PUPIL ATTENDANCE - ELEMENTARY SCHOOLS
City-Wide Average and Sample of Breakfast Schools



A contract with a private research firm was established for conducting scheduled interviews with 68 teachers and five principals concerning their perceptions of the Nutritional Improvement Project. Responses to the first question, which related to the most noticable effect of breakfast on children's behavior, were given by 70 of the 73 adults with three new teachers declining to answer questions claiming lack of knowledge of pupils' prior attitudes. Of the 70 respondents, 87 per cent offered comments which were positive in relation to pupils' need for food, pupils' reaction to breakfast, and pupil motivation and readiness for school work during the rest of the school day. TABLE 2 presents these data.

TABLE 2

EFFECTS OF SCHOOL BREAKFAST ON PUPILS
AS NOTED BY TEACHERS AND PRINCIPALS

Type of Adult Comment	Number of Responses	Per Cent of Responses
Improved attendance and punctuality	28	27%
Increased alertness and energy	33	31%
More positive attitude	10	10%
Improved manners	9	9%
Increased motivation	7	7%
Better health	3	3%
No effect	14	13%

All principals and teachers selected for interviewing responded to questions related to problems or weaknesses of the project. The major weakness was identified as lack of variety in

the menu. Thirty-three per cent of the respondents made comments related to this item. An additional 2 per cent of the comments concerned other problems directly related to the food itself. However, when asked the question concerning weaknesses 23 per cent of the teachers and principals claimed there were no weaknesses as far as they could see. TABLE 3 presents these data.

TABLE 3

GREATEST WEAKNESS OR PROBLEM WITH SCHOOL BREAKFASTS NOTED BY TEACHERS AND PRINCIPALS

Type of Adult Comment	Number of Responses	Per Cent of Responses
Food: Lack of variety	27	33%
Pupils don't like	10	12%
Inadequate amounts	5	6%
Spoiled food	2	3%
Wasted food	1	1%
Time involved:		
Intrudes on teaching time	7	9%
Discipline:		
Teacher control difficult	4	5%
Social time	1	1%
Cleanup:		
Involves teacher	2	3%
Children messy	2	3%
Roaches	1	1%
No Problem; no weakness	19	23%

In relation to the goal of developing a receptive attitude toward school, it would appear from comments from teachers and principals that 26% of the adults interviewed mentioned this as a primary benefit of the project.

No direct measure of improved pupil achievement as a

APPENDIX A

SCHOOLS PARTICIPATING IN THE BREAKFAST PROGRAM
1971-72

ENROLLMENT		ENROLLMENT	
543	Alfred A. Benesch	530	Longwood
886	Anton Grdina	680	Louis Pesteur
689	Bolton	624	Margaret Ireland
868	Boulevard	381	Marion
1064	Capt. A. Roth	738	Mary B. Martin
769	Charles H. Lake	1358	Mary M. Bethune
357	Charles Orr	884	Miles Standish
616	Charles W. Chesnutt	778	Mt. Pleasant
740	Chesterfield	193	Murray Hill
570	Columbia	852	Oliver W. Holmes
535	Crispus Attucks	653	Parkwood
923	Daniel E. Morgan	542	Paul Dunbar
608	Dike	436	Quincy
500	Doan	---	Rosedale (combined with M.M. Bethune)
838	Dunham	464	Scranton
581	East Madison	1013	Sowinski
772	Forest Hill Parkway	381	Stanard
691	George W. Carver	554	Stephen E. Howe
541	Giddings	297	Sterling
362	Gordon	1164	Tremont
947	Hazeldell	732	Wade Park
413	Hicks	928	Walton-Mill
635	Hodge	315	Waring
641	Hough	730	Washington Irving
820	Iowa Maple	---	William McGuffey (combined with Kentucky)
278	John Burroughs	672	Woodland Hills
665	John D. Rockefeller	266	Woodland-Observation
843	John W. Raper	274	Wooldridge
795	Joseph F. Landis		
1139	Kentucky		

Total enrollment (58 schools): 37,068 pupils

APPENDIX B

SAMPLE OF 18 SCHOOLS SERVING BREAKFAST
1/68 - 5/72

Charles Orr
Charles W. Chesnutt
Columbia
Crispus Attucks
Daniel E. Morgan

Dike
Dunbar
George W. Carver
John Burroughs
John D. Rockefeller

John W. Raper
Joseph F. Landis
Margaret Ireland
Mary B. Martin
Paul Dunbar

Quincy
Tremont
Rosedale

SAMPLE OF 8 SCHOOLS NO-BREAKFAST
Title I Classification
9/72

Buhrer
Charles Dickens
East Clark
H.W. Longfellow
Lafayette

Robert Fulton
Tod
Waverly